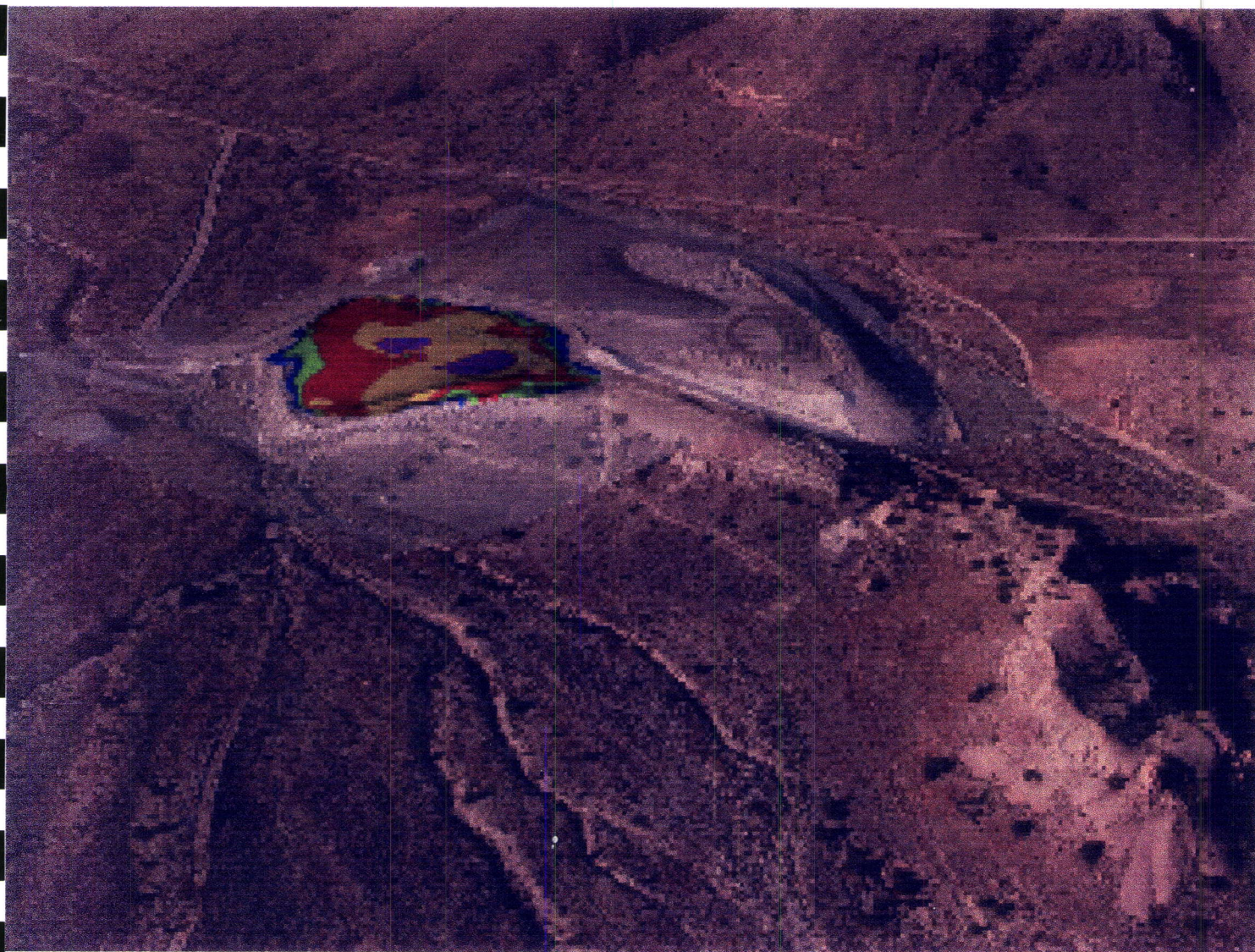


W
paid Jan. 30, 1998

BRUSH WELLMAN, INC.

BERYLLIUM / MINING DIVISION

Hogs Back Project



M / 023 / 053

1997 ANNUAL REPORT of Mining Operations

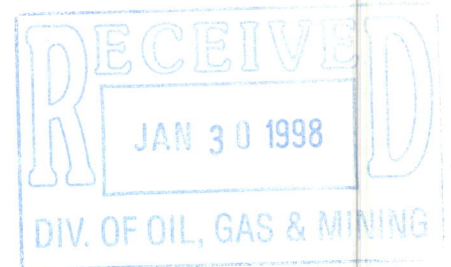


TABLE OF CONTENTS

ANNUAL REPORT OF MINING OPERATIONS (FORM MR-AR Revised 12/93)

Supplement to the report

1. Legal description of lands affected.
2. Letter of November 20, 1997 to D. Wayne Hedberg of D.O.G.M. and Letter of November 24, 1997 to Ron Teseneer of the U.S. BUREAU OF LAND MANAGEMENT Request for release from work on Monitor #3, and North Blue Chalk #2 pit berms and request of mine site inspection.
3. Memorandums of work completed on Hogs Back project permit number M/023/053.
 - a) Plat
 - b) Photo
4. Memorandum of December 3, 1997 of seed mix used form MRP on Hogs Back project.
6. Please note pit, dump, main road, and topsoil stockpile areas in photo and plat.

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
1594 West North Temple Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
Telephone: (801) 538-5291
Fax: (801) 359-3940

ANNUAL REPORT OF MINING OPERATIONS

The informational requirements of this form are based on provisions of the Mined Land Reclamation Act, Title 40-8, Utah Code Annotated 1953, as amended, and the General Rules as promulgated under the Utah Minerals Regulatory Program. An operator conducting mining operations under a Notice of Intention must file an annual operations and progress report (FORM MR-AR) with the Division.

I. GENERAL INFORMATION

1. Report Time Period: From (mo./yr.) Jan. 1997 To (mo./yr.) Dec. 1997
2. DOGM File Number: M/023/053
3. Mine Name: Topaz Mining Property
4. Mineral(s) Mined: (or permitted to mine): Bertrandite (beryllium)
5. Type of mine ☒ Surface Mine or ☐ Underground Mine
6. Legal Description (Location of Lands Affected):
See enclosed description...
_1/4, _1/4, Section __, Township __, Range __
_1/4, _1/4, Section __, Township __, Range __
_1/4, _1/4, Section __, Township __, Range __
7. Name of Operator or Company: Brush Wellman, Inc.
8. Permanent Address: P.O. Box 815
City, State, Zip: Delta, Utah, 84624
Phone: (801) 864-2701
9. Company Representative (or designated operator):
Name: Greg G. Hawkins
Title: Mine Manager
Business Address: P.O. Box 815
City, State, Zip: Delta, Utah 84624
Phone: (801) 864-2701 ext. 211
☐ Please check if any of the above information has changed since previous year.

II. MINING AND RECLAMATION

1. Was the mine active during the past year? Yes ☒ No ☐
2. If active, how much ore or mineral was mined? 0 Wet tons (delivered)

**TOPAZ MINING PROPERTY
JUAB COUNTY, UTAH**

LEGAL DESCRIPTION OF LANDS AFFECTED

**SW 1/4 and SE 1/4 of Section 35, T12S, R12W SLBM and in Lot 2
and Lot 3 of Section 2, T13, R12W, SLBM.**

3. How much **additional acreage** was affected during past year? ≅ 18 new acres disturbed
4. Briefly describe any new or additional surface disturbances that occurred during the past year. This description should include the type of work performed, and volume of material moved.

Completed phase stripping of the Hogs Back project. Haul/access road constructed. Approximately 150,000 B.C. yards of material removed.

5. How much acreage was **reclaimed** during past year? Approx. 2.5 acres reclaimed
6. Briefly describe the reclamation work performed during the past year. This description should include methods employed, and an evaluation of the results.

1) Reclamation treatment on Hogs Back dump 2h: 1v slope.

7. What is the **total disturbed acreage** at years end? 18 acres State and Private land; with 2.5 acres pending release.

8. Briefly summarize mining and/or reclamation plans for the upcoming year.

1) Mining of Hogs Back is scheduled for fall 1998 approximately 44,000 tons of ore. Some reclamation may be done in 1998. Topsoil has been placed on 2H: 1V dump slope and it has been reseeded. (See attached memorandum dated Nov. 28, 1997).

NOTE: Section III., "Additional Information" applies only to large mining operations.

III. ADDITIONAL INFORMATION

SEE ATTACHMENTS

1. An updated surface facilities map should be attached if there have been significant changes since the previous map was submitted.
2. Any monitoring results or other reports that are required under the terms of the approved notice of intention should be attached.

IV. SIGNATURE REQUIREMENT

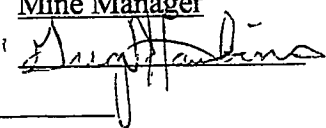
I hereby certify that the foregoing is true and correct.

Name (Typed or Print): Greg G. Hawkins

Title of Operator: Mine Manager

Signature of Operator:

Date: 1/22/98



BRUSHWELLMAN

ENGINEERED MATERIALS

November 20, 1997

Brush Wellman, Inc.
P.O. Box 815
Delta, Utah 84624
Phone 801/864-2701

D. Wayne Hedberg
Permit Supervisor
State of Utah Department of Natural Resources
Division of Oil, Gas, and Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, UT 84180-1203

**Re: Topaz Mine, M/023/003, Juab County Utah; Request for Release From
Work on Monitor # 3, and North Blue Chalk # 2 Pit Berms.**

Dear Mr. Hedburg:

Please be advised that additional reclamation treatment as of November 20, 1997 has been completed on the Monitor # 3 dump, North Blue Chalk # 2 dump, Hogs Back topsoil pile seeded, Hogs Back 2 to 1 dump slope and Section 16 North topsoil stockpile area. A site inspection may be conducted at your convenience. At this time Brush Wellman will request a release of safety berms around the Monitor # 3 pit and the North Blue Chalk # 2 pit as required in the MRP.

I am very proud to work for an organization like Brush Wellman who have empowered me with the reclamation responsibility. I think this has been the best reclamation treatment we have tried yet. I am very excited to view the results this spring. I hope your agency agrees with me that Brush Wellman is trying to exceed the reclamation requirements. See work completed in the annual report.

I look forward to your reply on setting a date concerning this inspection. Please feel free to contact me Clyde Yates at (801-864-5556) ext. 102 or Mr. Greg Hawkins at (801-864-2701) ext. 211.

Sincerely,


Clyde Yates

cc: Don McMillan
Tom Munson
Greg Hawkins
File

Memorandum

DATE: November 24, 1997

TO: File

FROM: Clyde Yates

RE: Reclamation work completed on Hogs Back area Approximately 2.5 acres.

CC: Greg Hawkins Don McMillan Dan Perry
File

From the stripping report using 22 Cu. Yd. per scraper load and 435 loads comes to 9,570 Cu. Yd. of topsoil available for reclamation from the Hogs Back dump and pit area.

In September 1997 J.B.K. hauled 11 loads approximately 220 Cu.Yd. of feedlot manure to the mine. This manure was then mixed with approximately 2,320 Cu. Yd. of topsoil from the Hogs Back topsoil pile. It was then spread on the Hogs Back 2 to 1 dump slope at 6 inches to 1 foot thick for reclamation seed bed. Approximately 7,250 Cu. Yd. of topsoil from Hogs Back stockpile is still available for reclamation use in Hogs Back area. (see plat attached)

October 23, 1997 approximately 400 lb. of Ammonium Nitrate was spread at 150 lb. per acre on Hogs Back 2 to 1 dump slope.

October 24, 1997 the side slope of Hogs Back dump was ripped to mix in the fertilizer and break the crust, to rough the surface up for seeding.

October 27, 1997 a berm was graded up to prevent erosion from the top of the dump and for safety.

November 4, 1997 the Hogs Back 2 to 1 dump slope and the remaining topsoil stockpile was seeded with standard seed mix. The seed mix was hand broadcasted at 12 lb. per acre as prescribed in the permit # M/023/053.

Exhibit: See plat and Photos

Memorandum

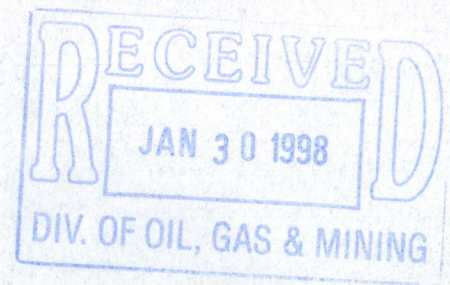
DATE: December 3, 1997
TO: Reclamation File
FROM: Clyde Yates
RE: Mine Plan Reclamation Work Done, Topaz
Mine, M/023/053, Juab County, Utah
CC: Greg Hawkins John Wagner
Don Mcmillan Dan Perry

Update From March 27, 1996 Report

The seeding of the Hogs Back dump 2 to 1 slope and topsoil stockpile area was completed on November 20, 1997. Approximately 2.5 acres of land and topsoil pile was seeded. Standard seed mix for topsoiled areas from **MRP** permit # M/012/053 was applied. Seed mix and poundage goes as follows.

| <u>Scientific Name</u> | <u>Common Name</u> | <u>lbs. used</u> |
|------------------------------------|--------------------|------------------|
| <u>Agropyron cristatum</u> | Crested Wheatgrass | 3.0 |
| <u>Sitanion hystrix</u> | Squirreltail | 2.0 |
| <u>Oryzopsis hymenoides</u> | Indian ricegrass | 2.0 |
| <u>Melilotus officinalis</u> | Yellow sweetclover | 1.0 |
| <u>Penstemon palmeri</u> | Palmer's penstemon | 1.0 |
| <u>Atriplex canescens</u> | Four-wing saltbush | 2.0 |
| <u>Atriplex confertifolia</u> | Shadscale | 1.0 |
| <u>Chrysothamnus viscidiflorus</u> | Green rabbitbrush | 1.0 |
| | <u>Total</u> | 12.0lbs. |





Dump Outslope

- Regrade to 2h:1v
- Approx. 6 in. of topsoil
- Revegetation Standard Treatment

Dump Top

Topsoil

Patented Claim

Pit

Check Dam

Haul Road

Patented Claim

UTAH STATE TRUST LAND

T 12 S , R 12 W
T 13 S , R 12 W
N 89°59' W

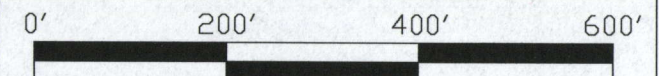
ML 46962

NW 1/4 Sec. 2
Lot 3

NE 1/4 Sec. 2
Lot 2

BRUSH WELLMAN, INC.
BERYLLIUM/MINING DIVISION

Hogs Back Project
1997 Reclamation Treatment
Dump Outslope & Check Dam



DRAWN BY: jrw DATE: Jan. 21, 1998
DRAWING: d:\acad\hogsback\hogdwg5